# "The Economy"

Excerpt From The
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## THE ECONOMY

### General

The City is the economic hub of both the Commonwealth and the New England region. It provides professional, business, financial, higher educational and medical services, as well as important transportation, communications, export, cultural and entertainment activities. As a government center, the City is the state capital and is host to several federal offices. In addition to providing some of these same industries and services, Boston's suburban cities and towns add manufacturing, high technology, research and development, construction and wholesale distribution to the region's economy.

Boston is the twentieth largest city in the United States and the center of the seventh largest Consolidated Metropolitan Statistical Area (CMSA) in the nation. Boston had a population of 574,283 and 610,126 jobs in 1990, as reported by the U.S. Department of Commerce, Bureau of the Census (the "Bureau of the Census") for population and a series consistent with the U.S. Bureau of Economic Analysis from data of the Massachusetts Department of Employment and Training, for employment. This ratio of jobs to population indicates that the City provides a direct source of employment and income for an area which extends beyond its borders.

After exceeding many measures of economic growth nationwide during the 1982 through 1988 period, Boston experienced an economic downturn coinciding with the regional decline in 1989 and 1990. During 1991, the economies of the New England states, Massachusetts, greater Boston, and the City of Boston also showed continued weakness in job growth, unemployment, income, housing, and commercial real estate markets. However, it would appear from an analysis of the economic data that several indicators may have ceased to decline during late 1990 or early 1991 and that by late 1991 certain economic indicators in the region may have evidenced the first sign of improvement. There are four examples. First, employment in the state had declined by over 300,000 jobs in the three annual periods from mid-1988 to mid-1991, but gained jobs in three of the last four months from August through December, 1991. Second, unemployment peaked in the state at 10.3% during March 1991 and at 8.4% and 9.3% in the greater Boston area and the City during June 1991. Even though unemployment ranged between 6.8% and 7.9% in these areas by year end, rates had steadily improved. Third, residential sales volume was at the lowest during 1990, but sales volume of single and multi-family homes in Greater Boston increased by 14.3% in 1991 compared to 1990 according to the Greater Boston Real Estate Board. This rise was most likely due to lower interest rates and prices. Finally, retail sales in greater Boston, as reported by the U.S. Census Bureau, showed gains from June through November, suggesting improvement from the lowest levels of 1989 and 1990. While these examples are not sufficient, by themselves, to indicate improvement in the general economy, they are consistent with data that could indicate an improvement.

### Statistical Data

Statistical data do not necessarily reflect current activity because of delays resulting from the time required to collect, tabulate and publish such data. While the City believes that it has used the most recent data readily available to it in the discussion in this section, because of such necessary delays, the data contained herein may not reflect current conditions or trends. Additionally, statistical data are approximations and generalizations subject to various sources of error inherent in the statistical process, and may be revised on the basis of more complete data. Within such limits, the statistical data contained herein describe past activity and are not presented with a view to predicting future economic activity either in particular categories or in general.

Statistical data relating to population, employment and income are derived primarily from four separate sources.

The *U.S. Census Bureau* publishes information about population, housing and the economy. Some 1990 annual data is now available from the decennial census while other data are yet to be completed. In addition, some monthly and quarterly data is available for 1991 on certain topics.

The *U.S. Bureau of Labor Statistics* publishes data and reports about the workforce and related subjects including unemployment rates, area wages, and cost-of-living adjustments. The most recent annual data are preliminary 1991 for some areas and final 1990 for all areas. The most recent monthly data are for December, 1991.

The *U.S. Bureau of Economic Analysis* publishes quarterly and annual statistics on income and employment. The most recent annual figures are from the September and December, 1991 revised series for Suffolk County, Metropolitan Counties, Massachusetts, and the nation.

The *City of Boston* and the *Boston Redevelopment Authority* ("BRA") prepare reports and compile data on the population and economy of the City and its neighborhoods. A Household Survey last conducted by the Center for Survey Research of the University of Massachusetts at Boston in 1985 provides data on the population and housing characteristics of Boston residents. BRA also provides data and trends from various local, regional, state and national sources on such topics as employment and occupations, large employers, city schools, universities and colleges, medical institutions, tourism and lodging, transportation, office and industrial markets, housing, building activity and urban redevelopment and infrastructure projects.

### New England, Massachusetts and Metro Boston Economies

New England comprises a six-state region which has a combined population of 13.2 million persons and over 7.8 million jobs according to 1991 Bureau of Economic Analysis data. For most of the 1980s, the rate of growth in total personal income, per capita income and population for New England was higher than the national average. Beginning in 1988, this trend reversed as the New England economy began to slow down. Total personal income grew at an annual average compound rate of 7.7% over the 1985 through 1990 period, above the 7.0% national rate. In the most recent period, from third quarter 1990 through third quarter 1991, personal income in New England grew at a rate of 0.9% compared to the 2.8% national rate. Employment in New England grew by 707,000 jobs from 1985 through 1988, at a rate of 3.0% annually. Job losses from the 1988 peak through 1990 totalled 190,000.

The Massachusetts economy, with 6.0 million people and 3.6 million jobs, has also slowed and even contracted in some respects since 1988. Total personal income grew at an 7.4% annual rate from 1985 through 1990. In the most recent period for which data is available, from the third quarter 1990 through the third quarter 1991, state personal income growth declined to 0.2%, below the 2.8% national average. The state gained nearly 284,000 jobs in the three-year period of 1985-1988, an average annual growth rate of 2.6%. The number of jobs declined by 135,000 between 1988 and 1990 as mini-computer, defense and financial firms consolidated. Preliminary data for 1991 from the U.S. Bureau of Labor Statistics adjusted to the U.S. Bureau of Economic Analysis series show an annualized loss of 186,000 jobs in 1991.

Metropolitan Boston, an area of 3.6 million people and 2.5 million jobs, has shown economic trends similar to those for the state. The rate of growth of total personal income, at 8.3% annually from 1985-1989, was above the 7.2% national rate. The growth of 181,000 jobs from 1985 through 1988 was offset by the loss of 115,000 jobs from 1988 through 1990 for a net gain of 66,000 jobs. Preliminary data from the U.S. Bureau of Labor Statistics adjusted to this U.S. Bureau of Economic Analysis series for 1991 show an annualized loss of 115,000 jobs.

**Population, Income and Employment**
**1985-1990**
**(income in current year dollars)**

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |
|---|---|---|---|---|---|---|
| **United States** | | | | | | |
| Total Personal Income ($000) | $3,317,545,000 | $3,519,364,000 | $3,754,577,000 | $4,058,796,000 | $4,367,369,000 | $4,662,698,000 |
| Per Capita Income ($) | $13,942 | $14,654 | $15,494 | $16,598 | $17,731 | $18,691 |
| Population (000) | 237,950 | 240,162 | 242,321 | 244,534 | 246,820 | 249,466 |
| Employment (000) | 123,175 | 125,592 | 129,006 | 132,661 | 135,343 | 137,153 |
| **New England** | | | | | | |
| Total Personal Income ($000) | $ 201,986,000 | $ 218,577,000 | $ 239,481,000 | $ 263,170,000 | $ 281,866,000 | $ 292,778,000 |
| Per Capita Income ($) | $15,852 | $17,030 | $18,489 | $20,110 | $21,383 | $22,143 |
| Population (000) | 12,742 | 12,835 | 12,953 | 13,086 | 13,182 | 13,222 |
| Employment (000) | 7,372 | 7,608 | 7,879 | 8,079 | 8,075 | 7,889 |
| **Massachusetts** | | | | | | |
| Total Personal Income ($000) | $ 94,957,000 | $ 102,800,000 | $ 112,127,000 | $ 123,267,000 | $ 131,403,000 | $ 135,861,000 |
| Per Capita Income ($) | $16,145 | $17,414 | $18,889 | $20,610 | $21,844 | $22,569 |
| Population (000) | 5,881 | 5,903 | 5,936 | 5,981 | 6,016 | 6,020 |
| Employment (000) | 3,494 | 3,586 | 3,690 | 3,778 | 3,754 | 3,643 |
| **Metropolitan Boston** (1) | | | | | | |
| Total Personal Income ($000) | $ 64,538,722 | $ 69,672,173 | $ 75,784,340 | $ 83,508,431 | $ 88,889,029 | N/A |
| Per Capita Income ($) | $17,391 | $18,679 | $20,330 | $22,354 | $23,746 | N/A |
| Population (000) | 3,711 | 3,730 | 3,728 | 3,736 | 3,743 | N/A |
| Employment (000) | 2,418 | 2,473 | 2,538 | 2,599 | 2,587 | 2,484 |

(1) This metropolitan area, the New England Counties Metropolitan Area ("NECMA"), is larger than the CMSA. It includes five counties in Massachusetts and one county in New Hampshire.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, April 1991 and September 1991.

**Employment Structure, Employment Trends and Occupational Changes**

Between 1976 and 1990, City employment continued to shift from traditional labor intensive manufacturing jobs to technology and service jobs, as shown in the table, "City of Boston Employment, 1976-1990," included in this section. Over the past five years, the City's service industries, including transportation, communication, public utilities, finance, insurance, business services and professional services, expanded their share of the City's total employment from 60% in 1986 to 62% in 1990, while the share of total employment in manufacturing and trade declined from 6% to 5% and from 15% to 13%, respectively. The emergence of high technology, along with finance, business and professional services, higher education and medicine has made the New England, Massachusetts and Boston economies more diversified.

Total employment in the City decreased by 8,654 between 1986 and 1990, as the growth of 20,819 jobs from 1986 through 1988 was offset by the loss of 29,473 jobs from 1988 through 1990. The two-year loss of jobs is most evident in construction, wholesale trade, finance, insurance, real estate and professional services, while gains are most evident in the hotel, health care, education and social services industries. The economy of the City and surrounding suburbs primarily rests on high technology, defense, finance, professional and business services, and educational and medical institutions. The City's economy is more specialized in the financial, professional and business service and institutional sectors than the suburban region; the suburban region is more specialized in high technology and the defense industry. This distinction plus the City's basic economic diversity make the City less susceptible to cyclical trends characteristic of manufacturing based economies, and correspondingly more stable than cities with economies significantly more reliant upon manufacturing.

**City of Boston Employment, 1976-1990**
**Selected Years by Industry**

| Industry | 1976 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |
|---|---|---|---|---|---|---|---|---|
| Fishing/Mining/Agriculture | 1,051 | 925 | 1,231 | 1,236 | 1,327 | 1,396 | 1,264 | 1,150 |
| Construction | 15,053 | 11,765 | 13,648 | 14,603 | 15,655 | 15,845 | 15,297 | 12,467 |
| Manufacturing | 53,779 | 52,646 | 42,800 | 39,639 | 37,664 | 34,817 | 33,177 | 32,113 |
| Transportation/Communication/Utilities | 36,232 | 38,740 | 37,831 | 36,308 | 36,574 | 37,562 | 35,669 | 36,144 |
| Wholesale Trade | 31,928 | 28,739 | 25,474 | 26,259 | 25,730 | 23,499 | 22,153 | 19,381 |
| Retail Trade | 58,958 | 59,799 | 64,449 | 64,814 | 63,564 | 62,293 | 62,776 | 60,922 |
| Finance/Insurance/Real Estate | 66,077 | 73,818 | 86,260 | 90,103 | 95,331 | 95,972 | 90,170 | 86,506 |
| Banking | 18,703 | 20,552 | 26,336 | 27,883 | 27,371 | 27,731 | 26,221 | 22,762 |
| Securities | 6,812 | 8,157 | 12,132 | 14,456 | 18,729 | 19,539 | 20,230 | 21,360 |
| Insurance | 32,731 | 35,167 | 34,206 | 33,310 | 32,494 | 31,160 | 29,692 | 29,085 |
| Real Estate and Other | 7,831 | 9,942 | 13,586 | 14,454 | 16,737 | 17,543 | 14,028 | 13,299 |
| Services | 170,704 | 205,066 | 238,403 | 245,648 | 252,250 | 260,252 | 259,735 | 254,889 |
| Hotel | 7,085 | 6,517 | 10,816 | 10,904 | 11,782 | 12,301 | 13,090 | 13,084 |
| Health | 57,524 | 65,211 | 69,515 | 70,975 | 72,209 | 74,537 | 75,414 | 76,524 |
| Educational | 21,185 | 26,295 | 29,235 | 29,352 | 29,449 | 30,316 | 30,343 | 30,595 |
| Cultural | 6,400 | 6,194 | 6,622 | 7,654 | 7,724 | 9,400 | 10,695 | 9,400 |
| Social and Nonprofit | 17,533 | 19,925 | 21,608 | 22,002 | 21,426 | 22,695 | 22,872 | 23,209 |
| Business and Professional | 49,774 | 70,035 | 87,722 | 91,860 | 96,900 | 98,190 | 94,743 | 90,498 |
| Personal and Repair | 11,203 | 10,889 | 12,885 | 12,901 | 12,759 | 12,812 | 12,578 | 11,395 |
| Government | 88,730 | 98,115 | 96,889 | 100,170 | 104,559 | 107,963 | 106,480 | 106,554 |
| Total | 522,512 | 569,613 | 606,985 | 618,780 | 632,654 | 639,599 | 626,721 | 610,126 |

Source: 1976-1989 figures are based on U.S. Bureau of Economic Analysis Series for Suffolk County (August 1991 Revised Series ("BEA Series")), pro-rated to Boston geography. 1990 data are based on Massachusetts Department of Employment and Training employment data adjusted to BEA equivalent series.

The greater Boston region comprises about two-thirds of the Massachusetts state economy, which is interrelated with other New England states. Consequently, Boston's job losses since the peak of 1988 should be viewed in the context of regional job losses. The following table charts jobs lost in the region from 1988 through preliminary 1991 data.

**Job Losses in the New England Region, 1989-1991**
**(1991 data preliminary)**

| Area | 1989 | 1990 | 1991 |
|---|---|---|---|
| New England | − 4.000 | −186,000 | −329,000 |
| Massachusetts | −24.000 | −111,000 | −186,000 |
| Greater Boston | −12.000 | −103,000 | −116,000 |
| Boston | −13.000 | − 16,600 | N/A |

Source: U.S. Bureau of Economic Analysis for 1989 and 1990.
U.S. Bureau of Labor Statistics for 1991 (preliminary, based on the annual average rate applied to the B.E.A. series and geography. New England based on actual October 1990 to October 1991 change).

As shown in the occupational table below, as of 1985, 62% of City residents were white-collar workers, 18% were service workers and 20% were blue-collar workers as compared to 60% white-collar workers in 1980, 18% service workers and 22% blue-collar workers. As the table below, "Occupational Change in the City's Resident Labor Force" shows, this trend among City residents away from blue-collar occupations and toward white-collar and service occupations has continued since 1960.

**Occupational Change in the City's Resident Labor Force**

| | 1960 | | 1970 | | 1980 | | 1985 | |
|---|---|---|---|---|---|---|---|---|
| | Number | % | Number | % | Number | % | Number | % |
| White Collar | 126,471 | 44% | 146,657 | 55% | 154,456 | 60% | 177,940 | 62% |
| Professional & Technical | 33,476 | 12 | 44,894 | 17 | 51,979 | 20 | 68,880 | 24 |
| Managerial | 15,604 | 5 | 15,035 | 6 | 25,238 | 10 | 31,570 | 11 |
| Clerical & Administrative | 58,990 | 21 | 71,655 | 27 | 58,451 | 23 | 57,400 | 20 |
| Sales | 18,401 | 6 | 15,073 | 6 | 18,788 | 7 | 20,090 | 7 |
| Blue Collar | 96,576 | 34 | 75,160 | 28 | 54,452 | 22 | 57,400 | 20 |
| Craftsmen | 32,398 | 11 | 27,157 | 10 | 19,772 | 8 | 22,960 | 8 |
| Operatives | 52,175 | 18 | 36,695 | 14 | 24,825 | 10 | 28,700 | 10 |
| Laborers & Farm | 12,003 | 4 | 11,308 | 4 | 9,855 | 4 | 5,740 | 2 |
| Service | 38,034 | 13 | 44,688 | 17 | 47,109 | 18 | 51,660 | 18 |
| Not Reported | 27,115 | 9 | — | — | — | — | — | — |
| Total | 288,196 | 100% | 266,505 | 100% | 256,017 | 100% | 287,000 | 100% |

Source: U.S. Department of Commerce, Bureau of the Census for 1960, 1970, 1980. Household Survey, 1985, conducted by the Center for Survey Research of the University of Massachusetts-Boston. 1990 Census data on the labor force is not yet available.

### Unemployment

Unemployment in the City increased from a low of 3.2% in 1987 to 5.5% in 1990. The City's average annual unemployment rate remained below the national rate through 1989 and equalled the national rate in 1990. Unemployment rates for Massachusetts and the New England region exceeded the national average in 1990, the first time in more than a decade. December, 1991 data show that Boston's unemployment rate of

7.2% was higher than the national average of 6.7% but below the Massachusetts rate of 7.9%. As of December, 1991, 21,500 Boston residents were unemployed. A survey of City households conducted in spring, 1985 reported a minority unemployment rate at double the City average and a youth unemployment rate at triple the average for the City, a pattern experienced by many of the country's urban centers.

**Annual Unemployment Rates**

| | 1970 | 1975 | 1980 | 1982 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | Monthly December 1990(1) | Monthly December 1991(1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| City | 4.9% | 12.8% | 6.1% | 9.1% | 4.4% | 3.2% | 3.3% | 3.9% | 5.5% | NA | 6.3% | 7.2% |
| Boston PMSA(2) | 4.0 | 10.5 | 5.0 | 6.7 | 3.3 | 2.7 | 2.8 | 3.4 | 5.1 | NA | 5.8 | 6.8 |
| Massachusetts | 4.6 | 11.2 | 5.6 | 7.9 | 3.8 | 3.2 | 3.3 | 4.0 | 6.0 | 9.0 | 7.0 | 7.9 |
| New England | 4.9 | 10.9 | 5.9 | 7.8 | 3.9 | 3.3 | 3.1 | 3.9 | 5.7 | NA | 6.3 | NA |
| United States | 4.9 | 8.5 | 7.1 | 9.7 | 7.0 | 6.2 | 5.5 | 5.3 | 5.5 | 6.7 | 5.9 | 6.7 |

(1) Monthly rates are not seasonally adjusted.
(2) Primary Metropolitan Statistical Area.
Sources: U.S. Bureau of Labor Statistics; Massachusetts Department of Employment and Training.

### Large Employers

As of the end of 1989, the eleven largest private sector employers in the City, combined, accounted for approximately 68,000 jobs, or 11% of total City employment.

**List of Largest Private Employers in the City, 1989 (1)**
**(companies with greater than 3,500 employees)**

| Rank | Employer | Rank | Employer |
|---|---|---|---|
| 1 | Massachusetts General Hospital | 7 | Bank of New England Corporation(2) |
| 2 | John Hancock Mutual Life Insurance | 8 | Beth Israel Hospital |
| 3 | Bank of Boston Corporation | 9 | FMR Corp. (Fidelity Investments) |
| 4 | Northeastern University | 10 | New England Medical Center |
| 5 | Boston University | 11 | Children's Hospital |
| 6 | Brigham and Women's Hospital | | |

(1) Arranged by number of employees
(2) Bank holding company acquired in 1991 by Fleet Norstar Financial Group, Inc.
Source: Boston Redevelopment Authority, 1990

In addition, the public sector has large numbers of employees in the City. Certain state government offices, federal regional offices, U.S. Postal Service facilities and state-chartered authorities and commissions and the City's local government are all located within the City. As a result, there were over 106,000 government workers in the City in 1990. There have been recent reductions in public employment in the Commonwealth, and there are proposals for further reductions.

### Labor Force and Education

According to U.S. Department of Commerce, Bureau of the Census numbers, the City's resident labor force declined during the 1970s but increased during the 1980s. In contrast to the 12% decline in population between 1970 and 1980, the City's labor force (those residents aged 16 and over, available to work) declined by only 4%. The difference in these rates of decline was attributable to the fact that the decline in population was concentrated in the under-16 age group. Since 1980, both the increasing population and the increasing age of that population have combined with the rising labor force participation of women, minorities, youth, and the

elderly to produce a larger labor force. By 1990, the City's population had increased by 2% over 1980, while the City's labor force increased by 9.8% in the same period, according to preliminary data from the Commonwealth's Department of Employment and Training.

General improvement in educational attainment of residents aged 25 and over continued throughout the 1970-1985 period. The percentage of this population that had completed four or more years of college more than doubled during this period from 10% to 22%. This change, in part reflected the trend for an increasing percentage of graduates of the City school system to seek higher education. This percentage has increased steadily from 25% in 1960 to 36% in 1970, 44% in 1977, 54% in 1982 and 66% in 1990, based on Boston School Department figures. Improving educational attainment levels and shifting occupational patterns suggest a concurrent transformation of the City's work force as the City's economy has moved to a service-dominated base.

The problem of high school dropouts continues for City public schools, but some improvement is noted. Based on Boston School Department figures, 32.7% of the students who entered high school in the fall of 1986 had not graduated by the end of the 1990 school year, as compared to the 39.7% of the students entering in the fall of 1982 who had not graduated by the end of the 1986 school year.

The City supports entry-level job training programs, including the following: English-as-a-Second Language training, pre-vocational and vocational training, adult literacy training, and support counseling. In addition, linkage contributions paid into the Neighborhood Jobs Trust provide a significant supplemental source of funding for job training programs administered by non-profit community organizations. For a full discussion of the City's linkage program see "Housing Stock, Housing Values, and the Linkage Program."

**Years of School Completed for Boston Residents Age 25 and Over, 1970-1985**

| | 1970 | | 1980 | | 1985 | |
|---|---|---|---|---|---|---|
| | Persons | Percent | Persons | Percent | Persons | Percent |
| 0-8 years | 91,582 | 26.1% | 54,932 | 16.6% | 35,380 | 10.0% |
| 1-3 years of high school | 71,511 | 20.4 | 49,407 | 14.9 | 56,608 | 16.0 |
| High school graduate | 120,350 | 34.3 | 115,787 | 35.0 | 116,754 | 33.0 |
| 1-3 years college | 30,876 | 8.8 | 43,451 | 13.2 | 67,222 | 19.0 |
| 4 or more years of college | 36,245 | 10.4 | 67,073 | 20.3 | 77,836 | 22.0 |
| Total | 350,564 | 100.0 | 330,650 | 100.0 | 353,800 | 100.0 |

Source: U.S. Department of Commerce, Bureau of the Census: 1970 and 1980. Household Survey, 1985. Data for 1990 are unavailable.

### Income, Wages, and Cost-of-Living

Per capita personal income for Suffolk County was $21,676 in 1989, 22.2% above national per capita personal income of $17,731, according to the U.S. Bureau of Economic Analysis. The City is wholly included within Suffolk County and comprises 87% of Suffolk County's population and 96% of its employment. An historical summary of per capita income shows that, from 1980 to 1989, the City's per capita income grew at a rate greater than that for the nation, in contrast to the 1970-1980 period when it rose at a slower rate. The City's per capita income also grew at a faster rate than the per capita income growth rates for New England, Massachusetts and Metropolitan Boston between 1982 and 1989. The City's per capita income remains below the per capita income for Massachusetts and Metropolitan Boston. 1990 data is now available for the U.S., New England, and Massachusetts. The City's median household income, based on the U.S. Census data, rose from $7,835 in 1970, to $12,530 in 1980 and then, based on the City's Household Survey, rose to $19,250 in 1985.

**Per Capita Personal Income Comparison. 1970-1990**
**(in current year dollars not adjusted for inflation)**

| | United States | New England | Massachusetts | Metro Boston(1) | Suffolk County(2) |
|---|---|---|---|---|---|
| 1970 | $ 4,051 | $ 4,445 | $ 4,514 | $ 4,782 | $ 4,691 |
| 1980 | 9,919 | 10,542 | 10,612 | 11,133 | 10,359 |
| 1982 | 11,482 | 12,572 | 12,755 | 13,493 | 12,161 |
| 1985 | 13,942 | 15,852 | 16,145 | 17,391 | 15,584 |
| 1986 | 14,654 | 17,030 | 17,414 | 18,679 | 16,666 |
| 1987 | 15,494 | 18,489 | 18,889 | 20,330 | 18,129 |
| 1988 | 16,598 | 20,110 | 20,610 | 22,354 | 20,112 |
| 1989 | 17,731 | 21,383 | 21,844 | 23,746 | 21,676 |
| 1990 | $18,691 | $22,143 | $22,569 | N/A | N/A |

(1) Metropolitan Boston denotes the New England County Metropolitan Area (NECMA), which is a larger size than the Primary Metropolitan Statistical Area (PMSA).
(2) The City constitutes about 87% of Suffolk County population.
Source: U.S. Dept. of Commerce. Bureau of Economic Analysis. April 1991 and August 1991 Revised Series.

The December, 1991 report from the U.S. Bureau of Economic Analysis indicates that average annual wages earned, by place of work, have been consistently higher in the City than in the Boston metropolitan area and the Commonwealth. This contradicts a widely held notion that the City, with its relative concentration of employment in a broad range of service industries, would be a lower wage area. Except for manufacturing and wholesale trade, wages in the City were higher for all major industry types. For all industries combined, the City's (Suffolk County) average wage level ($30,922) was 11.5% greater than that in the metropolitan area ($27,745) and 19.2% greater than the average state wage level ($25,944).

During the years 1980-1990, based on the U.S. Bureau of Labor Statistics Consumer Price Index, the cost of living rose at an annual average rate of 5.3% in the Boston metropolitan area, while the national index increased at a 4.7% annual rate. From November 1990 to November 1991, the cost of living in the Boston area rose 2.0%, compared to 3.0% for the nation.

### Population

The U.S. Census population count for 1990 reports the City's population as 574,283, a 2% increase over 1980 and the first increase since the 1940s. The Bureau of the Census estimated the 1986 city population at 573,600. Households increased from 217,622 in 1970, to 218,457 in 1980 and to 228,464 in 1990, while household size fell from 2.8 to 2.4 persons per household from 1970 to 1990. The Census Bureau population estimate for Massachusetts on July 1, 1991 was 5,996,000 or a reduction of 20,000 persons (-0.3%) from the 1990 census.

**Population of the State, Boston Metropolitan Area, and City 1970, 1980, and 1990**

| | 1970 | 1980 | 1990 | Change 1970-1980 | Percent Change 1970-1980 | Change 1980-1990 | Percent Change 1980-1990 |
|---|---|---|---|---|---|---|---|
| Massachusetts | 5,689,170 | 5,737,037 | 6,016,425 | 47,867 | 0.8% | 279,388 | 4.9% |
| Metropolitan Boston | 2,899,101 | 2,763,257 | 2,794,280(1) | −135,744 | −4.7% | 31,023(1) | 1.1%(1) |
| City of Boston | 641,071 | 562,994 | 574,283 | −78,077 | −12.2% | 11,289 | 2.0% |

(1) Because of a metropolitan area geography change from SMSA to PMSA, the 1980-1990 change is based on a PMSA population of 2,805,911 in 1980. The 1970-1980 change is based on the previous SMSA.
Source: U.S. Department of Commerce Bureau of the Census.

**Higher Educational and Medical Institutions**

The City's educational and medical institutions are an important component of its economy, providing employment opportunities for residents of the City and its metropolitan area. In addition, expenditures by the institutions' students, patients and visitors are important to the City's trade and service sectors. Thirty-one in-patient hospitals are located within the City, including Massachusetts General Hospital, Brigham and Women's Hospital, Beth Israel Hospital, Children's Hospital, New England Deaconess Hospital, Boston City Hospital and the New England Medical Center. A special BRA survey showed that as of December, 1987, these hospitals, together with the three medical clinics and a chronic care facility also located in the City, provided 47,862 full-time jobs and had an annual payroll of over $1 billion. Data from the U.S. Census Bureau, *County Business Patterns*, showed that the number of hospital employees in Suffolk County between 1987 and 1989 grew from 47,154 to 56,558.

The City is also the home of the medical and dental schools of Harvard, Tufts and Boston Universities. In addition, the City has 25 neighborhood health clinics open to the general public (not including health maintenance organizations and membership clinics), of which six are affiliated with Boston City Hospital.

In 1990, there were an estimated 76,524 persons employed in health services in Boston, based on U.S. Bureau of Economic Analysis data. Health services represent 1 out of every 8 jobs within Boston. Growth in the health services sector has been stable, despite varying economic conditions.

Boston's hospital and medical school community has invested $7[illegible] million in new facilities since 1984, and has committed an additional $500 million to upgrading clinical facilities during 1991 and 1992.

The City is currently undertaking a major capital improvement project at Boston City Hospital, designed to make the hospital a more modern, efficient and competitive facility. The project involves construction of a new eight level inpatient facility, demolition of obsolete buildings and renovation and upgrading of other buildings. Construction began in 1990 and is expected to continue until 1995. The hospital will remain fully operational during construction, and no change in the services provided by the hospital will occur.

Boston's medical and educational institutions are well regarded and receive significant research funding. Boston is the nation's largest center for health research. The 25 medical research institutes within the City of Boston drew $407 million in National Institutes of Health research grants in fiscal 1990, considerably more than any other city. According to National Institutes of Health data, six of the top seven independent hospitals in the nation which received the most National Institutes of Health research funding in 1990 are located in Boston. Privately-funded research in Boston includes a $100 million, ten-year agreement between Dana-Farber Cancer Institute and Sandoz Pharmaceutical Ltd., and four agreements between Massachusetts General Hospital and various chemical, drug and cosmetic companies that will fund $33 million of research during 1992 alone.

According to a 1991 BRA report, Boston's medical research institutions had nearly 2.7 million square feet of research space in 1990, and there was a demand for an additional 2.6 million square feet. Employment in medical research in 1990 was approximately 8,100 jobs. If the demand for the additional space was met, the increase in available space could result in approximately 3,100 to 5,500 new jobs. According to a 1991 City of Boston report, "Building Boston's Economic Future: An Agenda for Economic Development," by the end of 1992, over 500,000 square feet of additional research space will go into construction, in commercial and institutional projects representing an investment of over $225 million.

Boston's medical research community has close ties to the region's over 100 biotechnology firms. According to a 1990 Ernst & Young study, "Biotech 91: A Changing Environment," metropolitan Boston is the nation's second largest center for the industry by total revenue, and third largest by number of firms. Massachusetts biotech firms raised an estimated $1 billion in private capital during 1991, more than in the entire previous decade. In November 1991, Genzyme Corporation, the first Massachusetts firm to build a full-scale biopharmaceutical manufacturing facility, chose to locate the plant in the Allston neighborhood of Boston.

As of 1990, the New England Board of Higher Education reports [illegible] colleges and universities in the Boston metropolitan area, at which approximately 240,000 students were enrolled. The City's 30 universities, colleges, and community colleges had a combined enrollment in fall 1990 of approximately 108,000, a slight decline from fall 1986. In addition, the graduate schools of Harvard and Tufts add nearly 4,000 more students. Based on total graduate and undergraduate enrollment, Northeastern University, which is located in the City, was the largest university in Boston with 30,515 students in 1990.

Educational institutions are a source of new highly skilled professionals for the City's labor force. For example, according to the Massachusetts Institute of Technology, although only 10% of its enrollees over the past decade were from the Boston area, 24% remained in the area after graduation.

**Tourism**

The City has experienced a healthy growth in visitors since 1976 with some years of decline such as in 1991. According to the Greater Boston Convention and Visitors Bureau, a preliminary estimate of 8.0 to 8.5 million people visited greater Boston in 1991, a decline of up to 9% from the peak of 8.8 million visitors in 1988. These visitors, measured as tourists, business travelers and convention and meeting delegates who travelled at least 100 miles to get to the City, had an estimated total economic impact upon greater Boston of \$6.5 billion in hotel accommodations, meals, entertainment, shopping, transportation, and other services during 1988. In 1985, the last year that tourist data was compiled for the City exclusively, the statistics showed that 80% of all visitors to greater Boston also visited the City during their stay.

A growing component of total visitors to the City are visitors to conventions, trade shows, and exhibits. In 1991, 1.05 million persons attended such functions in the City, a gain of 5% from the one million in 1988. According to national figures from a 1990 survey by "Business Travel News," the City ranked as the 21st largest convention city in the nation in 1989 with 525,000 convention delegates. The completion of the enlarged and renovated John B. Hynes Veterans Memorial Convention Center (1988), together with the World Trade Center (1986) and the Bayside Exposition Center (1985 and 1991 expansions), gives the City three facilities with a combined capacity for over one million people per year.

**Transportation**

The City is a major national and international air terminus, a seaport, and the center of New England's rail, truck and bus services. The City is served by three limited access interstate highways which connect it to the national highway system, including the Massachusetts Turnpike, which traverses the Commonwealth from the border of New York directly to downtown Boston.

Transportation planning includes both major highway and mass transit programs. Investment in public transportation was facilitated by federal transportation legislation that enabled the Massachusetts Bay Transportation Authority ("MBTA") to receive approximately \$3.5 billion between 1965 and 1990. In the 1980s, subway extensions on two lines, modernization of downtown stations and the purchase of new rail cars were completed.

The current MBTA Capital Program continues this initiative by including a variety of expansion and rehabilitation projects. The North Station Transportation Center Project includes the construction of a 1,400 car underground garage and a new commuter rail terminal, the relocation of the Green Line to an underground tunnel, and the creation of a Green Line and Orange Line superstation. Construction of this facility is being undertaken through a series of phased contracts. The South Station Transportation Center, Phase II of which will soon be underway, entails the construction of an intercity bus terminal and a 245-car parking garage above the commuter rail tracks.

Further commuter rail improvements are proceeding with the purchase of 289 new coaches, including 75 double decker coaches. The Old Colony Project is a major commuter rail restoration project along the South Shore area of metropolitan Boston. Construction of the Old Colony line is anticipated to begin in 1992 and is scheduled for completion by 1996. In addition, the MBTA anticipates modernizing all rapid transit stations on the Blue Line.

The South Boston Piers Transitway/Light Rail Project is a $278 million system which connects South Station with the World Trade Center and includes a stop at the planned new U.S. Courthouse site at Fan Piers.

MBTA capital program projects are funded through the federal government (Urban Mass Transportation Administration) and MBTA bonds and certificates of participation. For a discussion of the City's obligation with respect to the MBTA, see "City Indebtedness—Indirect Debt."

Amtrak intends to spend $1.2 billion to modernize its system, and a major part of that modernization is the High Speed Rail Project between Boston and New York. Amtrak expects to complete electrification of the Boston to New Haven corridor by 1997. Amtrak will be experimenting with Swedish tilt train technology. No commitments have been made to fund the provision of one or more tilt trains beyond the experimental period. If such tilt trains were provided for daily use, that provision if used along with electrification is expected to drop the travel time from Boston to New York to under three hours. Other rail project ideas include $500 million to research and develop a prototype magnetic levitation high speed train system. The Boston to Albany rail corridor is a candidate for becoming this prototype magnetically levitated rail system.

The federal "Intermodal Surface Transportation Infrastructure Act of 1991" authorizes most of these projects described above; however, funding of them depends in large part on the provisions of the federal budget for fiscal year 1993 and related legislation.

**Airport and Seaport**

The Massachusetts Port Authority ("Massport") was created by the state legislature to stimulate and support the Commonwealth's economy through development and management of the City's major air and sea transportation centers and the Tobin Memorial Bridge over the Mystic River. Massport is financially independent and the City is not responsible for any debt or other obligations incurred by Massport. Since Massport was formed in 1959, heavy use of Boston-Logan International Airport ("Logan Airport") and the port of Boston has compelled significant expansion of both facilities. Massport spent a total of $513.7 million consisting of $262.2 million on airports and $251.5 million on Tobin Bridge, maritime, development, and other capital spending projects from 1981 through 1990.

The port of Boston serves the six-state New England region and beyond as a natural deep-water berth. The primary market for Boston's port is the New England region due to three factors. First is the influence and proximity of the New York-New Jersey ports to the south and other ports down the eastern seaboard of the U.S. as well as the presence of the Montreal port to the north of Boston and Great Lakes ports accessed through the St. Lawrence Seaway. The second factor leading to seaport decline in Boston was the decline of manufactured goods in New England, except for computer equipment which can be easily served by air freight. The third factor is the modernized container technology of shipping which was begun earlier by other ports and which required much less labor in the port of Boston. Even though New England generates significant container shipping, a full 58% of cargo is shipped to and from other ports by rail, barge, or truck. Boston's port tonnage fell as a result of changes in transportation technology and in the regional economy. In 1990, according to the Army Corps of Engineers the port of Boston ranked as the 21st largest American seaport by total tonnage shipped and as the 18th largest American seaport by foreign tonnage shipped.

Boston port activity includes handling bulk and general cargo, providing ship repair supply services, offering customs and international trading services, providing storage facilities and other commercial maritime services. In 1990, the port of Boston handled over 22 million tons of general cargo (primarily containerized goods) and bulk cargo (commodities and raw materials) worth $8.1 billion through three public container terminals and through 23 private terminals.

Logan Airport is served by 40 domestic and international airlines that are international, national, regional or commuter carriers. Air travel passengers arriving at and departing from Logan Airport increased at an annual rate of 2.2% between 1985 and 1990. In 1991 Logan Airport served a total of 21.5 million passengers, a decrease of 6% from the peak 22.9 million ridership in 1990. The decline was mainly due to the effect of the war and a national recession. Logan Airport, located just three miles from downtown Boston, was the ninth

busiest airport in the United States and fourteenth in the world in 1990. According to the Airport Operators Council International, Logan Airport ranked tenth in the nation in total air cargo volume in 1990.

Massport has identified $1.8 billion in long-term capital improvements for all of its facilities. Most Massport facilities are located in the City of Boston and include capital spending plans for Logan Airport of $1.5 billion as well as over $200 million for the Tobin Memorial Bridge and all port properties. As of July 1990, Massport projected that it would spend an average of approximately $90 million per year during fiscal years 1991 through 1995 for ongoing capital improvements of Hanscom Field, Logan Airport, Tobin Memorial Bridge, the port of Boston, and for improvements and major maintenance at various Massport properties.

**Construction Activity**

During the last two decades the public and private sectors carried out a major expansion of capital construction and investment activity that was instrumental in the transformation of the City's economic base. Private commercial development investment has added over 16 million square feet of office space to the physical inventory of the City since 1975, five times the amount built in the previous 35 years.

The following table sets forth the estimated construction activity in the City of Boston from 1982-1991. Construction activity has been estimated by tracking building permit revenues received by the City of Boston, calculating the estimated value of the development cost and adjusting the data for inflation. It should be noted that the issuance of a building permit and payment of a fee do not necessarily result in construction activity.

During the three-year period of fiscal 1986, fiscal 1987 and fiscal 1988, the estimate of total construction activity was $6 billion, or almost $2 billion annually. In both fiscal years 1989 and 1990, total estimated construction activity dropped by $0.5 billion dollars in each year. Over the ten-year period, 1982 through 1991, the average annual estimated construction activity adjusted for inflation was $1.3 billion for a total of $12.9 billion. The table below indicates a decline of approximately $224 million in estimated construction activity adjusted for inflation in the last year. In fiscal year 1991, building permit revenues were below the annual average for the 1982-1990 period by $507 million.

**Boston Building Permit Revenues and Estimated Construction Activity**
**Fiscal Years 1982-1991**

| Fiscal Year | Building Permit Revenues (1) | Estimated Potential Construction Activity (2) | Estimated Potential Construction Activity Adjusted For Inflation (3) |
|---|---|---|---|
| 1982 | $ 3,305,857 | $ 388,924,353 | $ 588,470,508 |
| 1983 | $ 5,196,160 | $ 611,312,941 | $ 889,124,267 |
| 1984 | $ 5,594,683 | $ 658,198,000 | $ 916,069,160 |
| 1985 | $ 7,435,576 | $ 874,773,647 | $ 1,160,516,328 |
| 1986 | $14,108,134 | $ 1,659,780,471 | $ 2,107,344,674 |
| 1987 | $13,504,134 | $ 1,588,721,647 | $ 1,966,786,424 |
| 1988 | $14,431,173 | $ 1,697,785,059 | $ 2,013,854,352 |
| 1989 | $11,423,439 | $ 1,343,934,000 | $ 1,502,998,652 |
| 1990 | $ 8,119,487 | $ 955,233,793 | $ 1,010,525,315 |
| 1991 | $ 6,689,380 | $ 786,985,833 | $ 786,985,833 |
| Total | $89,808,023 | $10,565,649,744 | $12,942,675,513 |
| Annual Average 1982-1991 | $ 8,980,802 | $ 1,056,564,974 | $ 1,294,267,551 |

(1) Building permit revenues in current dollars.

(2) Construction activity estimated by dividing permit revenues by .85%, which is the midpoint between permit fees calculated at .7% of the first $100,000 and 1% for the remainder.

(3) Construction activity adjusted for inflation using CPI-U index from Bureau of Labor Statistics (Base 1982-84=100) to 1991 constant dollars.

Source: City of Boston, Auditing Department, Boston Redevelopment Authority, Policy Development and Research Department.

Three major public infrastructure projects have begun in the 1990s: the Central Artery reconstruction, the Third Harbor Tunnel, and the harbor clean-up project. See "Large Public Sector Projects" below. The Central Artery and Third Harbor Tunnel projects are estimated by the Massachusetts Department of Public Works to generate an average of 3,700 construction jobs per year during the peak construction period. The harbor clean-up project is estimated by the Boston Redevelopment Authority to cost $4.1 billion (at 1990 prices) and create an average of 1,730 construction jobs per year.

**Office Market and New Development**

The City currently has 49 million square feet of office space of which 37 million is Class A, and 12 million is Class B or C. From 1977 through 1983 local office occupancy surveys reported a consistent decline in vacancy rates to 2.0% in 1983. With the addition of over three million square feet of office space in 1984, the vacancy rate rose to 11.5% by the end of that year, although net absorption of over two million square feet was the highest in a decade. In 1986 and 1987 demand of over two million square feet annually outpaced office completions, sending vacancy rates back down to 5.2% by the end of 1987. During 1988 completions of over three million square feet of new and renovated Class A office space and a decline in absorption to 1.0 million square feet brought the vacancy rate for such space up to 12.0%. In 1989, office market absorption at 796,000 square feet, and the addition of about 718,000 square feet, reduced vacancy rates to 11.5%. Vacancy rates at year-end 1990 were 14.6% with an annual absorption of 583,000 square feet, when 1.9 million square feet of new office space was added.

New office construction added during 1991 totalled 905,513 square feet of office space in two buildings. The total amount of space absorbed in 1991 is not yet known but it is expected to be less than the new supply added. At the end of the third quarter of 1991, the downtown Boston office vacancy rate had risen to 16.5% according to the BRA, which is a rate lower than that determined by Coldwell Banker in the table below.

Even though Boston's downtown market vacancy rate is the highest that it has been since the middle of the 1970s, it remains below the national average. Also, the higher vacancy rate has resulted in lower rents, making office rent more affordable for tenants.

**Comparative Office Vacancy Rates**
**20 Largest Downtown Office Markets as of September 30, 1991**
**(Ranked by Size of Downtown Market)**

| Office Market Size | City | Vacancy Rate | Office Market Size | City | Vacancy Rate |
|---|---|---|---|---|---|
| 1 | Manhattan, Midtown | 14.9% | 11 | Minneapolis-St. Paul | 17.5% |
| 2 | Chicago | 14.7 | 12 | Denver | 20.1 |
| 3 | Manhattan, Downtown | 18.9 | 13 | Cleveland | 17.7 |
| 4 | Boston | 17.8 | 14 | Phoenix | 27.5 |
| 5 | Philadelphia | 13.8 | 15 | Cincinnati | 17.1 |
| 6 | San Francisco | 10.8 | 16 | Atlanta | 17.6 |
| 7 | Houston | 18.1 | 17 | Portland, Ore. | 16.9 |
| 8 | Los Angeles | 19.2 | 18 | Kansas City | 25.0 |
| 9 | Dallas | 24.7 | 19 | St. Louis | 22.9 |
| 10 | Seattle | 13.0 | 20 | Detroit | 14.3 |

**National Average(1) 18.0%**

(1) National Average is based on 45 U.S. cities from the CB Commercial Office Vacancy Index. Source: CB Commercial Office Vacancy Index, September 30, 1991.

### Retail Market

The City is within the ninth largest metropolitan retail market in the nation as of 1990. Of the approximately 10 million square feet of retail space in the City, approximately six million square feet are located in downtown Boston and Back Bay. Approximately 3,800 retail stores are located in the City. According to the U.S. Census of Retail Trade, retail sales in the Boston Metropolitan area decreased by 1.6% to $33.490 billion in 1990 from the 1989 level. During 1991, retail sales in metropolitan Boston were below those of 1990 for the period January through May but have been above the 1990 levels for June through November. The eleven months in 1991 compared to the same period in 1990 show a rise of 2.1% compared with a national decline of 0.6% for the same period.

**Metropolitan Boston Retail Sales, 1987-1991**
**(In millions, not adjusted for inflation)**

| | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|
| January | $ 2,094 | $ 2,387 | $ 2,456 | $ 2,490 | $2,317 |
| February | $ 2,178 | $ 2,434 | $ 2,409 | $ 2,411 | $2,378 |
| March | $ 2,383 | $ 2,739 | $ 2,734 | $ 2,797 | $2,685 |
| April | $ 2,441 | $ 2,682 | $ 2,746 | $ 2,698 | $2,638 |
| May | $ 2,669 | $ 2,857 | $ 3,043 | $ 2,949 | $2,931 |
| June | $ 2,723 | $ 2,911 | $ 2,918 | $ 2,893 | $3,008 |
| July | $ 2,551 | $ 2,643 | $ 2,625 | $ 2,657 | $2,842 |
| August | $ 2,612 | $ 2,734 | $ 2,918 | $ 2,870 | $2,936 |
| September | $ 2,705 | $ 2,828 | $ 2,847 | $ 2,792 | $3,184 |
| October | $ 2,663 | $ 2,762 | $ 2,777 | $ 2,740 | $2,976 |
| November | $ 2,740 | $ 2,893 | $ 3,001 | $ 2,948 | $2,995(*) |
| December | $ 3,295 | $ 3,486 | $ 3,522 | $ 3,245 | NA |
| Annual | $31,054 | $33,356 | $34,046 | $33,490 | NA |

* Preliminary.

Source: U.S. Department of Commerce, Bureau of the Census, "Current Business Reports: Monthly Retail Trade". *Compiled by Boston Redevelopment Authority Research Department.*

### Industrial Market and Recent Development

At mid-year 1991, according to Spaulding & Slye Colliers, 15.7 million square feet of industrial space was located in the City. The vacancy rate was 33.5%, with a little over five million square feet unoccupied. The average rent was estimated to be approximately $4.00 per square foot. In addition, there were 3.2 million square feet of industrial research and development space in Boston, which was 19.9% vacant with 738 thousand square feet available. The average rent was estimated to be $10.04 per square foot.

According to information from the Economic Development and Industrial Corporation of Boston, five million square feet were acquired and/or rehabilitated in the City for industrial use from 1983 through 1989. Among these projects were the multi-million dollar expansions by Teradyne, Inc. and H. P. Hood Inc., the Economic Development and Industrial Corporation's new Industrial Center at the former Boston Army Base and the Marine Industrial Park. Phase One of the Massachusetts Technology Center by Massport in East Boston, renovation of the former Schrafft's factory in Charlestown for high-technology industry, a new building by Wang Labs in downtown Boston, and private investments in and rehabilitation for industrial use of the Stonybrook Commerce Center in Jamaica Plain, the Howden Sirocco plant in Hyde Park, and the Charlestown Marine Park (formerly Amstar Sugar Refinery) in Charlestown.

During 1990 and 1991, significant additions to Boston's industrial base included Groupe Bull's investment of $17 million and decision to consolidate its North American manufacturing and add a shift at its Brighton plant, and the rehabilitation of a Hyde Park paper mill, into a 200-employee firm recycling office waste into

high-quality paper products. In November of 1991, a Cambridge-based biotechnology firm, Genzyme Corporation, committed to start construction in 1992 of a $75 million biopharmaceutical manufacturing plant in Allston, a neighborhood of Boston. Genzyme plans to build further manufacturing, R&D, and headquarters facilities on the site during the 1990s.

**Hotel Market**

From 1980 through 1989, fourteen hotel projects, including eleven new hotels and three additions to existing hotels, added 4,885 new rooms to the City's hotel stock. With these new hotels, the number of hotel rooms in the City has risen from 6,907 in 1980 to 11,792 by 1991, an increase of 71%. Occupancy rates rose steadily from a low of 64% in 1975 to a peak of 77% in 1979. From 1980 through 1989 annual occupancy rates were in the range of 68 to 76% even as many new rooms were completed and average room rates continued to rise. In 1990, the occupancy rate reached 73.8% which ranked Boston third among downtown hotel markets in large American central cities, behind Honolulu and Orlando, as measured by occupancy rates. This rate for 1990 compared favorably to the 67.2% national rate. A hotel occupancy rate of 65% is generally considered by lodging industry experts to be one which is profitable.

Through November 1991, the Boston and Cambridge hotel occupancy rate was 71.6%, compared to 75.4% for 1990; average daily room rates, however, decreased by 2.8% to $119 for such period. Currently the only hotel under construction in the city is the 270 room Hyatt Hotel and Conference Center at Logan International Airport scheduled to open in late 1993. Several other new hotels have been proposed but since required approvals have not been obtained no completions would occur before 1994.

**Urban Redevelopment**

While the federal urban renewal program was phased out in the 1970s and general revenue sharing funds were eliminated in the 1980s by the Federal Government, Boston does receive various forms of Federal aid for urban programs including education funds, Community Development Block Grant (CDBG) revenue, and Job Training Partnership Act (JTPA) monies, among others. See "Federal Aid."

The City also benefited from the federal Urban Development Action Grant (UDAG) program, receiving approximately $74 million in UDAG funds for projects from 1978 through 1986; the program has now been phased out. Approximately $50 million of such funds constitute loans that are repaid into the Neighborhood Development Fund, which is a revolving loan fund consisting of repayments on UDAG loans. Such repayments are used for neighborhood commercial development and affordable housing production.

**Housing Stock, Housing Values, and The Linkage Program**

In April 1990, the City's total housing stock consisted of 250,863 units. From 1980 through 1990, over 9,400 net new housing units were added to the City supply. The composition of housing is changing. Private rental apartments declined between 1980 and 1990, mainly due to condominium conversions. Condominium units increased from about 4,500 in 1980 to over 33,000 in 1990 or 13% of total stock. Units in 1-4 family homes increased between 1980 and 1990, now constituting over 50% of the City's housing stock. More than 80% of these structures are owner-occupied. Despite the loss of rental units since 1980, largely as a result of condominium conversions, publicly-assisted housing production has generated over 5,000 net new units. In 1990, public and publicly-assisted housing constituted 17% of the City's housing stock.

Within the City of Boston the median sales value of a single family home was $161,400 in 1990, as reported by the U.S. Census. The Census also reported a median contract rent in the City of $546 per month in 1990, which combines market rate units with subsidized units. The City's gross housing vacancy rate in 1990 was 9%, with an estimated 6% net vacancy rate.

**Greater Boston Annual Median Housing Prices**

| Year | Housing Prices | Percent of Change |
|---|---|---|
| 1980 | $ 71,700 | — |
| 1981 | $ 73,900 | 3.1% |
| 1982 | $ 80,200 | 8.5 |
| 1983 | $ 82,600 | 3.0 |
| 1984 | $100,000 | 21.1 |
| 1985 | $134,200 | 34.2 |
| 1986 | $159,200 | 18.6 |
| 1987 | $177,200 | 11.3 |
| 1988 | $181,200 | 2.3 |
| 1989 | $182,200 | 0.5 |
| 1990 | $173,800 | (4.6) |
| 1991 | $171,500* | (1.3) |

* 1991 is an average of the first three quarters sales prices weighted by sales volume.

Source: National Association of Realtors and the Greater Boston Real Estate Board.

The National Association of Realtors reported a median sale value of $182,200 for homes in the Boston metropolitan area for 1989, and $173,800 for 1990. The comparable figure for the first three quarters of 1991 was $170,000, which is a 7.2% decline from its peak in 1989. The Greater Boston Real Estate Board reports that during 1991, 14.3% more single and multi-family homes were sold in the Boston metropolitan area than during 1990. Banker and Tradesman real estate reports show that the number of homes in the state in November, 1991 at 6,030 was an increase of 12% above the November, 1990 number 5,384.

The City implemented its development linkage program in December, 1983, in order to direct some of the benefits of downtown investment to the building of affordable housing in its neighborhoods. The zoning ordinance which established the program was adopted in December, 1983 and amended in February, 1986. Under the program, real estate developers seeking approval of large scale commercial or institutional developments are required to enter into agreements obligating them to make "linkage payments" in an aggregate amount of $6 per square foot of construction over 100,000 square feet, of which $1 goes to a job training fund and $5 goes for housing purposes. Housing linkage payments are made to the Neighborhood Housing Trust and are due annually for a period of either seven or twelve years. The seven-member Neighborhood Housing Trust holds public hearings and, together with the Boston Redevelopment Authority, approves linkage grants to selected projects. As of December 31, 1991 developers of 43 projects completed or in construction were committed to pay $55.3 million in housing linkage. Already, $33.7 million of this money has been earmarked for the construction or renovation of 3,560 housing units in the City's neighborhoods. Affordable housing units, those targeted to low and moderate income residents, comprise 77% of the total.

**Large Public Sector Projects**

It is anticipated that during the next decade, several major public sector projects will be implemented in and around the Boston metropolitan area. The projects include the depression of the central artery, which is the key six-lane elevated interstate highway that carries traffic through the City, and the construction of a four-lane third harbor tunnel (together, the "Transportation Projects"). The Artery connects with the Sumner and Callahan Tunnels (each with two lanes) under Boston, which link downtown Boston with Logan Airport and points north. The Transportation Projects, which are intended to improve traffic flow within the City, are under the control of the Commonwealth. These Transportation Projects are currently in the design and engineering stages for most components while six construction contracts have begun. Construction on the whole project is estimated to cost over $4.4 billion in 1987 dollars, which will be funded from federal and state sources. All of the federal funding has been authorized but has not yet been appropriated. It is expected that appropriations will be made annually as the work progresses, although this cannot be guaranteed.

Additionally, the Massachusetts Water Resources Authority ("MWRA"), an independent state authority, has taken steps towards the construction of one of the largest wastewater treatment facilities in the nation

(the "Treatment Facility Project"). This project, which is being undertaken pursuant to a federal district court order, is scheduled for final completion in 1999 as part of the wastewater treatment program with a total cost of approximately $4.7 billion (1992 dollars). As of December 1991, the MWRA reports that approximately $1.5 billion of contracts have been awarded, providing 2,600 jobs with 329 different private contractors. The project is intended to bring wastewater discharges in Boston Harbor in compliance with federal and state requirements, and will be funded through state and federal grants and MWRA revenue bonds.

The City is not directly responsible for the costs of any of these projects, although the City, as a major user of water and sewer systems, may bear some cost of the Treatment Facility Project indirectly through increased user fees. See "City Indebtedness — Related Authorities and Agencies — Boston Water and Sewer Commission." It is currently negotiating with the Commonwealth to receive mitigation payments for any City services (such as fire and police) which may be required to support the Transportation Projects. No such services are expected to be required for the Treatment Facility Project. The City does expect to have to sell to the Commonwealth certain of its revenue-generating parking facilities in connection with assembling the site required for the Transportation Projects. See "City Indebtedness — Debt Statement and Related Sources of Payment — Leased Parking Facility Revenues."

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